



Transmitted via Overnight Courier

June 12, 2012

Mr. Dean Tagliaferro U.S. Environmental Protection Agency **EPA New England** c/o Weston Solutions, Inc. 10 Lyman Street, Suite 2 Pittsfield, MA 01201

Ms. Marianne Milette U.S. Environmental Protection Agency **EPA New England** 5 Post Office Square Mail Code: OES05-4 Boston, MA 02109-3912

Re:

GE-Pittsfield/Housatonic River Site East Street Area 2-North TSCA CAO No. 01-2002-0049 Building 9 Sub-Vault - Revised Cleanup Plan

Dear Mr. Tagliaferro and Ms. Milette:

The General Electric Company (GE) anticipates that, in 2012, it will perform demolition activities (and related pre- and post-demolition activities) for Buildings 9, 9B, 9D, 9E, 9F, 9G, and 10 (Building 9 and 10 Complex) at its Pittsfield, Massachusetts facility. These buildings are located in a portion of the GE facility referred to as the East Street Area 2-North Removal Action Area (RAA), which is part of the GE-Pittsfield/Housatonic River Site (the Site) under the Consent Decree (CD) executed for the Site. Figure 1 shows the Building 9 and 10 Complex. GE's planned demolition of these buildings is not part of the Removal Actions subject to the CD and the accompanying Statement of Work for Removal Actions Outside the River (SOW) for the Site.1 In addition, all of the demolition-related building materials and debris will be transported off-site for disposal at appropriate facilities. As a result, specific EPA approval for building demolition and debris disposal activities under the CD or SOW is not required. Rather, these activities will be subject to applicable federal, state, and local laws and regulations, and will be implemented in accordance with GE's Protocols for Building Demolition and Associated Characterization Activities (Demolition Protocols; Exhibit A-1 to Attachment A to GE's Project Operations Plan [March 2007]).

In addition, however, separate from the CD and SOW, GE is required to submit and obtain EPA approval of cleanup plan for a sub-vault in Building 9. In December 2001, GE notified EPA that it had identified capacitors and transformers containing polychlorinated biphenyls (PCBs) in a sub-vault within Building 9, and that one of the PCB-containing transformers was observed to have leaked a small amount of oil. In response, in May 2003, EPA and GE entered into a Consent Agreement and Order (CAO) under the

<sup>&</sup>lt;sup>1</sup> In fact, the Final Completion Report for the East Street Area 2-North Removal Action under the CD was submitted to the U.S. Environmental Protection Agency (EPA) on January 6, 2012 and approved by EPA on January 19, 2012.

Toxic Substances Control Act (TSCA), Docket No. TSCA 01-2002-0049. Paragraph 48.B.ii of that TSCA CAO established certain requirements related to the final cleanup of the sub-vault oil leakage. Specifically, Paragraph 48.B.ii of the TSCA CAO states the following:

At least sixty days prior to transferring ownership of the property on which Building 9 is located, or undertaking demolition of Building 9, Respondent shall submit for EPA's review and written approval a cleanup plan to address PCB contamination in the sub-vault, conduits, electrical corridor, floor drains, sumps, all associated piping, and subsurface soil. Respondent shall submit such cleanup plan in accordance with the requirements of 40 C.F.R. § 761.61; provided, however, that any such cleanup plan shall take into account and not be inconsistent with the remedial requirements of the Consent Decree.

On January 16, 2012, GE submitted to EPA a proposed cleanup plan for the sub-vault within Building 9 where the oil leakage from the PCB transformer was identified in December 2001. Following that submission, EPA and GE discussed the need for and scope of additional characterization of the sub-vault for PCBs, ultimately resulting in the collection of several concrete floor samples in April 2012. Once available, the sample results were provided to EPA (and are also summarized herein). The sub-vault cleanup plan has been revised to incorporate those data, as well as the results of other discussions with EPA. This letter presents that revised cleanup plan.

This revised plan is submitted pursuant to the TSCA CAO and 40 CFR § 761.61(c) for EPA review and approval. It takes into account the response actions that have been conducted in this area of the GE facility under the CD and SOW, the recent sampling and discussions mentioned above, and the future activities and controls to be implemented in this area under the CD. The remainder of this letter is organized as follows:

- A. GE's Initial and Subsequent Response Activities
- B. Summary of Available Information
- C. Proposed Cleanup Plan
- D. Explanation of No Unreasonable Risk

Following EPA review and approval, GE will incorporate the final cleanup plan for the sub-vault in Building 9 into its overall demolition planning and implementation activities for the Building 9 and 10 Complex.

### A. GE's Initial and Subsequent Response Activities

On December 13, 2001, GE notified EPA that three PCB-containing capacitors and two PCB-containing transformers had been identified in a sub-vault located within the northwest corner of Building 9. As part of that notification, GE also advised EPA that one of the transformers had leaked some fluid; and it proceeded to remove and containerize the three PCB capacitors, the two PCB transformers, and the fluid

located beneath the leaking transformer for transport to and storage at GE's on-site TSCA storage facility. The containerized items were subsequently transported off-site for disposition at appropriately permitted disposal facilities. Figure 2 shows the general location of the sub-vault area and the specific sub-vault where oil leakage was identified.

Subsequent to the activities described above, GE conducted several other measures in response to the discovery of the PCB-containing equipment in the Building 9 sub-vault:

- GE investigated the sub-vault where the leaking transformer was discovered and reported the results of this investigation to EPA in a letter dated February 13, 2002. In that letter, GE estimated that just over two gallons of dielectric fluid may have leaked from the transformer over an undetermined amount of time, with a 3- to 4-foot diameter area under the transformer being covered with oil with a tar-like consistency. The tar-like substance was removed and the area was cleaned. GE also investigated various drains, sumps, and conduits in the area around the sub-vault, and did not find evidence that the dielectric fluid that had leaked from the transformer had migrated from the sub-vault where it was found.
- In accordance with Paragraph 48.B.i of the TSCA CAO, GE sealed off any drains and conduits in the sub-vault where the leaking transformer was discovered, double washed and rinsed the concrete surfaces of the sub-vault, and then applied a double coat of contrasting colors of paint, consistent with 40 CFR 761.30(p). Materials generated from the cleaning activities were sent for off-site disposal at a TSCA-authorized facility.
- Following cleaning and painting activities, GE placed PCB ML labels at several locations at and within Building 9, including each exterior door and overhead door, and the entrance to the subvault where the leaking PCB transformer was located.
- GE completed additional security enhancements, including the addition of high-security locks to the exterior doors of Building 9 (to control and limit access to select GE personnel and contractors).

### B. Summary of Available Information

Building 9 is located in the eastern half of East Street Area 2-North (Figure 1). Building 9 was originally constructed in 1947 and was utilized by GE's Power Transformer Department through the early 1990s. The sub-vault which contained the leaking PCB transformer is located in the northwest corner of Building 9, as shown on Figure 2. Several characterization activities have been performed in the vicinity of the Building 9 sub-vault, including soil and groundwater sampling conducted pursuant to the CD, as well as the recent sampling and analysis of the concrete floor within the sub-vault itself. A summary of these activities is provided below.

Soil and groundwater investigations have been conducted near Building 9 as part of GE's obligations under the CD and SOW for East Street Area 2-North. The soil and groundwater data served as the basis for comparing existing conditions with the applicable Performance Standards established in the CD and

SOW for this RAA to determine if and to what extent remediation is needed. Some soil remediation activities were conducted at this RAA in 2008 to achieve the Performance Standards, although no soil remediation was performed in the vicinity of Building 9. Following the completion of the remediation activities (as well as some building demolition activities), a deed restriction known as a Grant of Environmental Restriction and Easement (ERE) under the CD was executed for this RAA and was recorded with the Berkshire Middle District Registry of Deeds on December 21, 2011. Subsequently, a Final Completion Report for the East Street Area 2-North Removal Action was submitted to EPA on January 6, 2012; and EPA issued a Certification of Completion for that Removal Action on January 19, 2012, confirming that GE has satisfied its obligations related to soils (except for post-remediation monitoring and maintenance) within East Street Area 2-North. Groundwater beneath this and several adjacent RAAs is also subject to the CD and SOW and is managed as part of Groundwater Management Area 1 (GMA 1).

The data from these soil and groundwater programs have been reviewed to assess whether the leaking PCB transformer in the Building 9 sub-vault may have caused or contributed to a release of oil or PCBs to soil or groundwater in the vicinity of Building 9. Since groundwater generally flows in a southerly/southeasterly direction in this area, the most relevant soil boring locations are ES1-10, RAA5-E29, RAA5-F27, RAA5-F30, and RAA5-G28 - all of which are located south or southeast of Building 9. However, for completeness, GE has also reviewed the soil data from the existing soil borings located immediately north of Building 9 (RAA5-D26, RAA5-D27, and RAA5-D28). These soil boring locations are shown on Figure 2, and the corresponding PCB soil analytical data are presented in Table 1. As shown in Table 1, the PCB data from these soil borings throughout the 0- to 15-foot sampling depth interval are either non-detect or less than 2 parts per million (ppm), with the exception of one sample result at 8.8 ppm (at RAA5-F30 from the 0- to 1- foot sampling depth increment). This sample location is approximately 300 feet from the sub-vault area where the leaking transformer was identified, and there are two sampling locations (RAA5-E29 and ES1-10) between that area and sample location RAA5-F30. both of which showed PCB concentrations well below 2 ppm. Moreover, all of these individual PCB soil results are far below the applicable risk-based Performance Standards for PCBs in soil at commercial/industrial areas under the CD, which are averages of 25 ppm in the top foot (with no sample greater than 125 ppm in unpaved areas), 200 ppm in the 1- to 6-foot depth increment, and 100 ppm in the upper 15 feet.

With respect to groundwater, the most relevant groundwater monitoring locations are ES1-10, ES1-5, and ES1-27R, as shown on Figure 2. In general, the Performance Standards for groundwater quality are based on the groundwater classification categories designated in the Massachusetts Contingency Plan (MCP). Groundwater from monitoring well ES1-10, which is the closest to Building 9, is classified as both GW-2 (constituting a potential source of vapor intrusion into the indoor air of nearby buildings) and GW-3 (constituting a potential source of discharge to surface water). Groundwater from monitoring well ES1-5 and ES1-27R is classified as GW-3.

Filtered PCB data collected from October 2001 through April 2008 from these monitoring wells are summarized in Table 2. These data have been compared to the applicable MCP Method 1 groundwater standards.<sup>2</sup> The PCB concentrations in the samples from monitoring well ES1-10 were all non-detect (and thus necessarily below the applicable Method 1 GW-2 and GW-3 standards for PCBs, which are 0.005 and 0.01 ppm, respectively). The PCB concentrations in the samples from monitoring wells ES1-5 and ES1-27R ranged from non-detect to 0.00226 ppm, all of which are below the MCP Method 1 GW-3 groundwater standard of 0.01 ppm for PCBs. Furthermore, from January 2001 to the present, there have been no observations of non-aqueous phase liquid (NAPL) in groundwater monitoring wells ES1-5, ES1-10 and ES1-27R.

The information summarized above indicates that the Building 9 sub-vault where the leaking PCB transformer was found is not a source of PCBs to surrounding soil and groundwater.

More recently, GE performed sampling and analysis of the sub-vault concrete floor. This activity was required by EPA based on its review of the January 16, 2012 version of this cleanup plan and included use of specific EPA Region 1 sampling protocols (i.e., Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls; May 2011). Following discussions related to the scope of the sampling and analysis activities, GE conducted the sampling on April 17, 2012. Samples were collected from three floor areas within the sub-vault, including one area where the leaking PCB transformer was located (Sample Area 9-SV-1). Within each area, samples were collected from several locations at depth increments of 0 to 0.5 inch and 0.5 to 3 inches, and the samples from each depth increment were composited into a single sample for analysis. Analysis of the three composite samples from the uppermost depth increment was performed initially; based on these results, the composite samples collected from the 0.5- to 3-inch depth increment were then analyzed. The sampling areas and locations are presented on Figure 3, a summary of the analytical results is presented below (duplicate sample result in parentheses), and the analytical laboratory data sheets are included as Attachment 1:

| Sample Area | Depth Increment (inches) | PCB Result (ppm) |
|-------------|--------------------------|------------------|
| 9-SV-1      | 0.0 - 0.5                | 3,350            |
| 9-SV-1      | 0.5 - 3.0                | 58.7             |
| 9-SV-2      | 0.0 - 0.5                | 489 (861)        |
| 9-SV-2      | 0.5 - 3.0                | 238              |
| 9-SV-3      | 0.0 - 0.5                | 8,500            |
| 9-SV-3      | 0.5 - 3.0                | 64.4             |

Based on the above data, the average PCB concentration in the surface of the concrete floor (0- to 0.5 depth) is 4,175 ppm, while the underlying depth increment from 0.5 to 3 inches has an average PCB concentration of 120 ppm, or approximately 3% of the overlying average PCB concentration. This decreasing trend in PCB concentrations, coupled with a concrete floor slab thickness of approximately

<sup>&</sup>lt;sup>2</sup> Under the MCP, the comparisons of site analytical data to Method 1 standards are to be based on the type of sample results that are representative of the concentrations which the receptor would contact. For PCBs, the dissolved concentration results from filtered samples are the most representative, since these results reflect the concentrations of the compound that could serve as a source of vapor intrusion or could migrate through the ground to surface water. Accordingly, the comparisons to the MCP Method 1 GW-2 and GW-3 groundwater standards for PCBs were based on the filtered sample results. This approach is consistent with the approach that has been approved by EPA for use at the Groundwater Management Areas under the CD.

12 inches (based on review of historic information), further supports the conclusion from the review of the soil and groundwater data in the vicinity of Building 9 - i.e., that the leaking transformer was not a source of PCBs to the environment.

### C. Proposed Cleanup Plan

As noted above, in 2001-02, GE removed the tar-like residue from what is believed to have been a release of approximately two gallons of dielectric fluid, and double-washed, double-rinsed, and double-painted the sub-vault where the release occurred. GE proposes to complete the cleanup of the sub-vault that contained the leaking PCB transformer by: (a) removing at least the uppermost three inches of the sub-vault's concrete floor for disposal as TSCA-regulated waste; and then (b) filling the entire sub-vault with concrete to match the adjacent Building 9 floor elevation (a depth of approximately 9 feet) to fully isolate, and prevent future contact with or exposure to, the sub-vault interior. These activities will be fully documented and will be performed in conjunction with the overall demolition of the Building 9 and 10 Complex.

### D. Explanation of No Unreasonable Risk

The evidence indicates that the sub-vault in Building 9 where the transformer oil leakage was observed is not currently posing an unreasonable risk of injury to human health or the environment, and that the proposed cleanup plan will further ensure that there will be no such risk in the future. This conclusion is based on the following considerations:

- GE's post-discovery investigation, reported to EPA in February 2002, indicated that the approximately two gallons of dielectric fluid that had leaked into the sub-vault had not been released to the environment.
- 2. Review of the available soil, groundwater, and sub-vault concrete floor sampling data provides additional evidence that the transformer oil leakage did not migrate to the outside environment. If PCB-containing oil had been released to areas surrounding the sub-vault, one would expect a corresponding spike in PCB concentrations in the adjacent soil and/or groundwater and/or the presence of NAPL in the groundwater. However, as summarized above, the existing PCB soil and groundwater data from the vicinity of the sub-vault show low levels of PCBs, and NAPL was not identified in the local groundwater. These data therefore do not show evidence of a past release of PCBs from the sub-vault to the outside soil and groundwater. Also, while elevated PCB concentrations were detected in the surface concrete floor samples collected from the sub-vault in April 2012, the next deeper sampling results showed a significant decrease in PCB concentration, thus further supporting the above conclusion.
- 3. In the CD and SOW, EPA established risk-based cleanup standards for soils in the GE Plant Area. Further, EPA specifically determined in Appendix D to the CD (pp. 41-42) that achievement of those Performance Standards will result in a condition that will not pose an unreasonable risk of injury to health or the environment under 40 CFR § 761.61(c). As previously discussed, the PCB concentrations in soil in the vicinity of Building 9 are much lower than the Performance Standards

established for this portion of the Site. In addition, the average PCB concentration in the deepest samples collected from the sub-vault concrete floor itself (120 ppm, from the 0.5- to 3-inch depth increment) is generally consistent with the applicable sub-surface Performance Standards. Nevertheless, the concrete floor from this depth will be removed as part of the proposed cleanup plan.

- 4. The measures taken by GE in response to the discovery of the leaking PCB transformer (i.e., transformer removal, removing the tar-like residue, washing and painting of exposed concrete subvault surfaces, enhanced security for Building 9, and placement of PCB ML labels at important locations) achieved conditions that are protective of health and the environment and do not present an unreasonable risk.
- 5. The additional measures proposed in this cleanup plan will provide further assurance that the condition of no unreasonable risk of injury is maintained in the future. Removing the uppermost three inches of the sub-vault concrete floor and then filling the sub-vault with approximately 9 feet of concrete (to be coordinated with the overall demolition of Building 9 and 10 Complex) will protect against any future exposure to or migration of any remaining PCBs in the sub-vault, thus preventing an unreasonable risk.
- 6. Future controls and other activities under the CD will provide additional protection against a potential unreasonable risk. This portion of East Street Area 2-North (i.e., the Building 9 and 10 Complex) will remain an access-restricted area under GE ownership and is subject an ERE under the CD, which places strict restrictions on future uses and activities at the area, including any excavations, and is under the direct supervision of the Massachusetts Department of Environmental Protection (MDEP). In addition, this area will remain subject to GE's ongoing long-term groundwater and NAPL monitoring program for GMA 1, which includes provisions for response actions as warranted.

These factors clearly demonstrate that the sub-vault does not pose an unreasonable risk of injury in its current state and that implementation of GE's plan will ensure that that condition remains.

Please feel free to contact me at (413) 448-5902 with any questions or comments.

Sincerely,

Michael T. Carroll

Manager, Pittsfield Remediation Programs

Michael T. Carroll Jun

Attachments

cc:

J. Kilborn, EPA

T. Conway, EPA

H. Inglis, EPA

R. Howell, EPA\*

M. Gorski, MDEP\*

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J. Ziegler, MDEP (2 copies)

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R. McLaren, GE\*

R. Gates, GE\*

J. Bieke, Sidley Austin

C. Bell, Sidley Austin

S. Gutter, Sidley Austin

J. Nuss, ARCADIS

**GE Internal Repositories** 

(\* without attachments)

## TABLE 1 EXISTING SOIL SAMPLING DATA FOR PCBs

# BUILDING 9 SUB-VAULT CLEANUP PLAN EAST STREET AREA 2 - NORTH GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results are presented in dry weight parts per million, ppm)

| Sample ID     | Depth<br>(Feet) | Collected | Aroclor-1016           | Aroclor-1221                                | Aroclor-1222          | America 4242          | Ameliand              |                      |                       |                       |
|---------------|-----------------|-----------|------------------------|---|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|
| ES1-10        | 0-2             | 5/6/1996  | ND(0.036)              | ND/0.072)                                   | Vaco OON              | 2421-101001V          | Arocior-1246          | Arocior-1254         | Arocior-1260          | Total PCBs            |
|               | 24              | 5/6/1996  | ND(0.038)              | (F20 0)CIN                                  | (000.000)             | (0.036)               | ND(0.036)             | ND(0.036)            | 0.52                  | 0.52                  |
|               | 4-6             | 5/6/1006  | NO(0.030)              | (10.0)                                      | ND(0.038)             | ND(0.038)             | ND(0.038)             | ND(0.038)            | 0.46                  | 0.46                  |
| DAAE DOE      | ,               | 2000      | (0.040)                | ND(0.081)                                   | ND(0.040)             | ND(0.040)             | ND(0.040)             | ND(0.040)            | ND(0.040)             | ND(0.081)             |
| 970-68-0      | 5 .             | 1/13/2004 | ND(0.042)              | ND(0.042)                                   | ND(0.042)             | ND(0.042)             | ND(0.042)             | 0.25                 | 0.41                  | 0.00                  |
| -             | 9               | 1/13/2004 | ND(0.038)              | ND(0.038)                                   | ND(0.038)             | ND(0.038)             | ND(0.038)             | ND/O 0381            | (8/C) C/UN            | NO COS                |
|               | 6-15            | 1/13/2004 | ND(0.038)              | ND(0.038)                                   | ND(0.038)             | ND(0,038)             | ND(0.038)             | ND(0.038)            | ND(0.038)             | ND(0.038)             |
| KAAS-D27      |                 | 1/13/2004 | ND(0.041)              | ND(0.041)                                   | ND(0.041)             | ND(0.041)             | ND(0.041)             | 0 11                 | 0.45                  | ND(0.036)             |
|               | φ               | 1/13/2004 | ND(0.038)              | ND(0.038)                                   | ND(0,038)             | ND(0.038)             | NO 038)               | ND/0 038)            | 0.13                  | 0.26                  |
|               | 6-15            | 1/13/2004 |                        | ND(0.038) [ND(0.038)] ND(0.038) [ND(0.038)] | ND(0)                 | ND(0 038) [ND(0 038)] | NOCO 038) IND(0 038)  | ND(0 028) (ND(0 028) | ND(0.038)             | ND(0.038)             |
| RAA5-D28      | 0-1             | 1/12/2004 | ND(0.048)              | ND/O 048)                                   |                       | (000.0)               | (00000) [00000]       | (850.0) [ND(0.038)]  | ND(0.038) [ND(0.038)] | ND(0.038) [ND(0.038)] |
|               | 4-6             | 1/12/2004 | -                      | MOYO CONTINUES CONTIN                       |                       | ND(0.048)             | ND(0.048)             | 0.22                 | 0.37                  | 0.59                  |
|               | 4               | 142/2004  |                        | ((850.0) [ND(0.039)] ND(0.039) [ND(0.039)]  | NO(0)                 | ND(0.039) [ND(0.039)] | (650.0) [ND(0.039)]   | 0.14 [0.16]          | 0.16 [0.17]           | 0.3 [0.33]            |
| 00 4 4 5 0 00 | 3               | 112/2004  | (40,037)               | ND(0.037)                                   | ND(0.037)             | ND(0.037)             | ND(0.037)             | ND(0,037)            | ND/0.037              | 120 O/UN              |
| KAAD-EKS      | 5               | 1/12/2004 | ND(0.036)              | ND(0.036)                                   | ND(0.036)             | ND(0.036)             | ND(0.03E)             | 0.33                 | 10000                 | (100.00)              |
|               | 9               | 1/12/2004 | ND(0.037)              | ND(0.037)                                   | ND(0,037)             | (FEC 0)CIN            | (0000)                | 20.0                 | 0.098                 | 0.428                 |
|               | 6-15            | 1/12/2004 | ND(0.037)              | NO 032)                                     | (1000)014             | (10,000)              | ND(0.037)             | 0.67                 | 0.61                  | 1.3                   |
| RAAS-F27      | 5               | NOOCINGIC | 1000000                | 100.000                                     | 140(0.037)            | ND(0.037)             | 0.028 J               | ND(0.037)            | 0.0097 J              | 0.0377 J              |
|               | - 4             | 200001100 | ND(0.038)              | ND(0.038)                                   | ND(0.038)             | ND(0.038)             | ND(0.038)             | 0.088                | 0.28                  | 0.368                 |
|               | 9 4             | 2024/2004 | ND(0.037)              | ND(0.037)                                   | ND(0.037)             | ND(0.037)             | ND(0.037)             | 0.059                | 0.12                  | 0.179                 |
| DAACCOO       | 0,0             | 2/24/2004 | ND(0.038)              | ND(0.038)                                   | ND(0.038)             | ND(0.038)             | ND(0.038)             | 0.014 J              | 0.018.1               | 0000                  |
| 05-1-50-21    | 5 .             | 1/26/2004 | ND(0.37)               | ND(0.37)                                    | ND(0.37)              | ND(0.37)              | ND(0.37)              | 5.4                  | 3.4                   | 6 700.0               |
|               | φ.              | 1/26/2004 | ND(0.038) [ND(0.038)]] | ND(0.038) [ND(0.038)] ND(0.038) [ND(0.038)] | ND(0,038) [ND(0,038)] | ND(0.038) [ND(0.038)] | ND/O 038) IND/O 03831 | 0610651              | t: 07 0               | 0.0                   |
|               | 6-15            | 1/26/2004 | ND(0.19)               |   |                       | ND(0.19)              | ND(0.19)              | (6.03) (0.03)        | 0.49 [0.48]           | 1.1 [1.03]            |
| RAA5-G28      | 6-15            | 1/26/2004 | ND(0.038)              | ND(0.038)                                   | ND(0.038)             | ND(0.038)             | NIDO 038)             | 10000                | 1./                   | 1.7                   |
|               |                 |           |                        |   | (000:0)               | (000.0)01             | (950.0)081            | ND(0.038)            | ND(0.038)             | ND(0.038)             |

Samples were collected by ARCADIS (formerly Bissland, Bouck & Lee, Inc.), and submitted to CT&E Environmental Services, Inc. or SGS Environmental Services, Inc. for analysis of PCBs.
 Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, Blasland Bouck & Lee, Inc. (approved May 29, 2004 and resubmitted June 19, 2004).
 ND - Analyte was not detected. The number in parentheses is the associated detection limit.
 Field duplicate sample results are presented in brackets.

### Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

# TABLE 2 EXISTING GROUNDWATER SAMPLING DATA FOR PCBs

## GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS (Results are presented in parts per million, ppm) BUILDING 9 SUB-VAULT CLEANUP PLAN

| ES1-05<br>04/11/08            |   | LID/0 0000741               | 0.0000                                  | ND(0,0000/1) J                          | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 140(0.0000, 1) 3 | 1 1/100000 0/018 |
|-------------------------------|---|-----------------------------|---|---|---------------------------------------|------------------|------------------|
| ES1-05<br>10/19/07            |   | I KROOOD OVON               | 200000000000000000000000000000000000000 | ND(0.000055) J                          | ND/O OOOES                            | 140(0.00000) 3   | NOW DODGES       |
| ES1-05<br>04/03/06            |   | ND/O OOORS                  | 20000                                   | 0.00021                                 | 0 00011                               | 10000            | 0 00032          |
| ES1-05<br>10/10/05            |   | ND(0.000065)                | 0 00043                                 | 0.000.0                                 | ND(0 000065)                          | /2000            | 0.00013          |
| ES1-05<br>04/06/04            |   | ND(0.000065) [ND(0.000065)] | 0 00034 10 000281                       | 0.5000 10.000.0                         | ND(0.000065) IND(0.000065)1           |                  | 0.00034 10.00028 |
| ES1-05<br>04/02/03            |   | ND(0.000065)                | 0 00067                                 |   | ND(0.000065)                          | 200000           | 0.0000           |
| ES1-05<br>11/08/02            |   | ND(0.000065)                | ND(0.000065)                            |   | 0.00018                               | 0.00018          | 0.000.0          |
| ES1-05<br>04/08/02            |   | ND(0.000065)                | 0.000068                                | 100000000000000000000000000000000000000 | ND(U.DUUDES)                          | 0.000088         | 0.0000           |
| ES1-05<br>10/19/01            | 130000000000000000000000000000000000000 | ND(0.000065)                | 0.000028 J                              | - 000000                                | 0.000002 J                            | 0 000000         | 0.00000          |
| Sample ID:<br>Date Collected: |   |                             |   |   |                                       |                  |                  |
| Parameter                     | Amolor 1949                             | 747 - 1000                  | Aroclor-1254                            | Aroclor-1280                            | 2000                                  | Total PCBs       |                  |

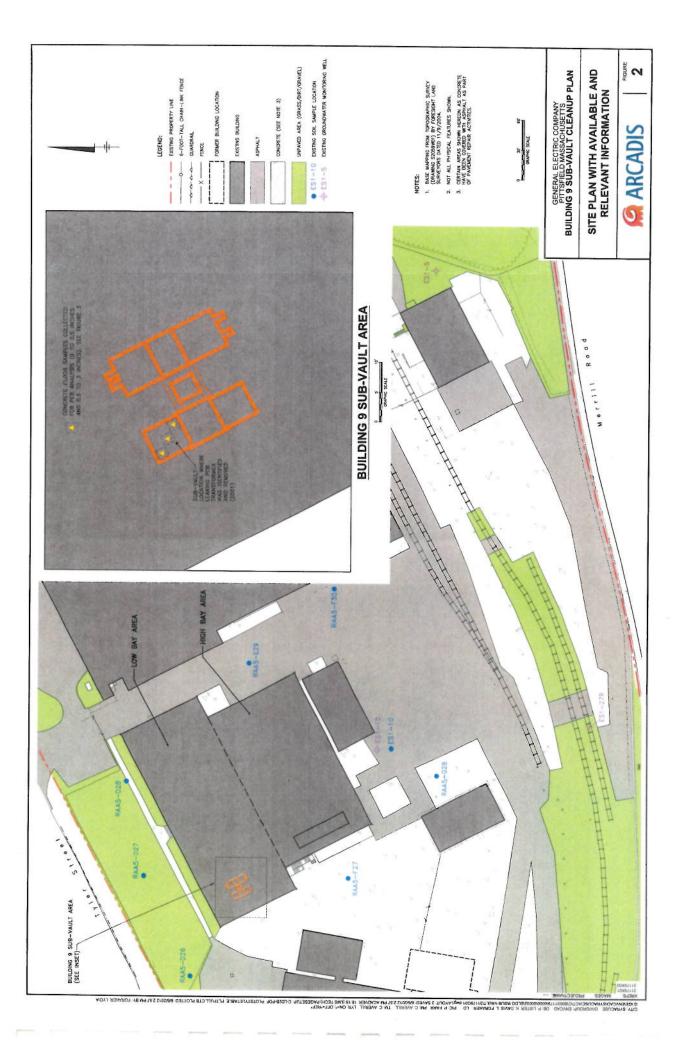
| Sample  <br>Parameter Date Collecte | D: ES1-10<br>d: 10/15/08 | ES1-10<br>04/08/09 | ES1-10<br>10/21/09 | ES140<br>04/16/10 |
|-------------------------------------|--------------------------|--------------------|--------------------|-------------------|
| PCBs-Filtered                       |                          |                    |                    |                   |
| Arodor-1242                         | ND(0.000077) J           | ND(0.000066)       | ND/0.000066)       | ND/O ODOORS       |
| Aroclor-1254                        | ND(0.000077) J           | ND(0.000066)       | ND/0 000061        | ND/0 000065)      |
| Aroclor-1260                        | ND(0.000077)             | ND(0,000068)       | ND(0 000068)       | ND/O OOOES        |
| Total PCBs                          | ND(0.0000777)            | ND/0 000068)       | ND(0 000068)       | ND/O OOOS         |

| Parameter Dai | Sample ID: ES1-27R te Collected: 10/16/01 | ES1-27R<br>04/03/02 | ES1-27R<br>10/15/02 | ES1-27R<br>04/01/03 | ES1-27R<br>04/06/04 | ES1-27R<br>10/06/05 | ES1-27R<br>04/03/06 | ES1-27R      | ES1-27R                                 |
|---------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------|---|
| PCBs-Filtered |   |                     |                     |                     |                     |                     |                     | 1010101      | 00/01/40                                |
| Aroclor-1242  | ND(0.000065)                              | ND(0,000065)        | ND/0 000085)        | I COROCOCIONON      | 1390000 07UN        | 1300000 00014       | 1000000             |              |   |
| Arodor 1054   | - 0,0000                                  | 13000000            | (000000)            | 2 (20000:0)211      | (CO00000)           | (ND(U.UUUUBS)       | ND(0.000065)        | ND(0.000065) | ND(0.000068)                            |
| 1234          | 0.000046 J                                | ND(0.000065)        | 0.000053 J          | 0.00041             | 0.0019              | 0.00016             | 800000              | מפטטטט טיטוע | 100000000000000000000000000000000000000 |
| Aroclor-1260  | ND/O OOO S                                | ND/O OOO E          | 10000000000         | . 0,0000            |                     | 0.000.0             | 0.00020             | (0.00000)    | ND(U.UUUUBB)                            |
| 200           | (00000)                                   |                     | (CO00000)           | 0.0000.0            | 0.00036             | ND(0.000065)        | ND/0 0000651        | ND/O OOOBS   | VOSCOCO CYCIN                           |
| lotal PCBs    | 0.000046.1                                | ND/O DOODES         | 0 000053 1          | - 130000            | 000000              |                     | (000000)            | (200000)     | (0000000) ON                            |
|               |   | (000000)            | 0.000000            | 0.0000.0            | 0.00226             | 0.00016             | 0.00028             | ND(0 000065) | ND/O OOOBS                              |

- Samples were collected by ARCADIS and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
   Samples have been validated as per GE's EPA-approved FSP/QAPP, General Electric Company, Pittsfield, Massachusetts.
   ND Analyte was not detected. The number in parentheses is the associated detection limit.
   Only those constituents detected in one or more samples are summarized.
   Field duplicate sample results are presented in brackets.

### Data Qualifiers;

J - Indicates that the associated numerical value is an estimated concentration.



SAMPLE LOCATION WITH 0.0 TO 0.5—INCH SAMPLES, SAMPLES WERE COMPOSITED INTO A SINGLE SAMPLE FOR LABORATORY ANALYSIS

LEGEND:

SAMPLE LOCATION WITH 0.5 TO 3.0—INCH SAMPLES, SAMPLES WERE COMPOSITED INTO A SINGLE SAMPLE FOR LABORATORY ANALYSIS

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NOT TO SCALE

SAMPLE AREA 9-SV-2

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
BUILDING 9 SUB-VAULT CLEANUP PLAN

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APRIL 2012 BUILDING 9 SUB-VAULT CONCRETE FLOOR SAMPLING



A ARCADIS

CITY: SYRACUSE DIVIGROUP: ENVCAD DB: I. FORAKER LD: PIC: P. FARR PM: C. AVERILL TM: C. AVERILL LYR: ON="; OFF="REP" CICEREN/CADISYRACUSE/ACTIONO3117900000000028LDG 9ISUB-VAULT031179G024wg LAYOUT: 3 SAVED: 66/2012 2:57 PM ACADVER: 18.15 (LMS TECH) PAGESETUP: C.LA-PDF PLOTSTYLETABLE: PLIFULL.CTB PLOTTED: 66/2012 2:57 PM BY: FORAKER, LYDIA XREFS: INAGES: PROJECTNAME: ....

- SAMPLE AREA 9-SV-1

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### Attachment 1

Analytical Data Sheets – April 2012 Sub-Vault Concrete Floor Sampling



### **Laboratory Report of Analysis**

To:

Steven Marshall

VEOLIA ES TECHNICAL SOLUTIONS

159 Plastics Avenue Pittsfield, MA 1201

Report Number: 31201133

Client Project:

Bldg 9 Sub-Vault Concrete

Dear Steven Marshall,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Barbara A. Hager at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely.

SGS North America Inc.

Bailara S. Hager

Barbara A. Hager 2012.04.27 10:39:58 -05'00'

Barbara A. Hager Project Manager

barbara.hager@sgs.com

Date

Print Date: 04/27/2012

N.C. Certification # 481

SGS North America Inc.

5500 Business Drive, Wilmington, NC 28405 t 910.350.1903 f 910.350.1557 www.us.sqs.com



### **Laboratory Qualifiers**

### Report Definitions

DL Method, Instrument, or Estimated Detection Limit per Analytical Method

CL Control Limits for the recovery result of a parameter

LOQ Reporting Limit DF **Dilution Factor** 

RPD

Relative Percent Difference

LCS(D) Laboratory Control Spike (Duplicate)

MS(D) Matrix Spike (Duplicate)

Method Blank

### **Qualifier Definitions**

Recovery or RPD outside of control limits

В Analyte was detected in the Lab Method Blank at a level above the LOQ

U Undetected (Reported as ND or < DL)

Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise

and detection limit

A Amount detected is less than the Lower Method Calibration Limit

Estimated Concentration.

0 The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in

the sample may be biased high

E Amount detected is greater than the Upper Calibration Limit

S The amount of analyte present has saturated the detector. This situation results in an

underestimation of the affected analyte(s)

Q Indicates the presence of a quantitative interference. This situation may result in an

underestimation of the affected analyte(s)

Indicates the presence of a qualitative interference that could cause a false positive or an

overestimation of the affected analyte(s)

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could

cause a false positive or an overestimation of the affected analyte(s)

TIC Tentatively Identified Compound

Estimated Maximum possible Concentration due to ion ratio failure **EMPC** 

ND Not Detected

Result is estimated due to ion ratio failure in High Resolution PCB Analysis K

Р RPD > 40% between results of dual columns

D Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1 Mis-identified peak

M2 Software did not integrate peak

Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one) МЗ

Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane) **M4** 

M5 Other - Explained in case narrative

Results pages that include a value for "Solids (%)" have been adjusted for moisture content. Note

Print Date: 04/27/2012

N.C. Certification # 481

SGS North America Inc.

5500 Business Drive, Wilmington, NC 28405 t 910.350.1903 f 910.350.1557 www.us.sgs.com



|                    |               | Sample Summary   |                  |                        |
|--------------------|---------------|------------------|------------------|------------------------|
| Client Sample ID   | Lab Sample ID | Collected        | Received         | Matrix                 |
| 9-SV-1 (0.0-0.5in) | 31201133001   | 04/17/2012 11:30 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-1 (0.5-3.0in) | 31201133004   | 04/17/2012 12:00 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-2 (0.0-0.5in) | 31201133005   | 04/17/2012 12:30 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-2 (0.5-3.0in) | 31201133006   | 04/17/2012 13:00 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-3 (0.0-0.5in) | 31201133007   | 04/17/2012 13:15 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-3 (0.5-3.0in) | 31201133008   | 04/17/2012 13:30 | 04/18/2012 10:15 | Soil-Solid as received |
| 9-SV-DUP-1         | 31201133009   | 04/17/2012 00:00 | 04/18/2012 10:15 | Soil-Solid as received |
| Rinse Blank        | 31201133010   | 04/17/2012 15:30 | 04/18/2012 10:15 | Water                  |

Print Date: 04/27/2012



### Results of 9-SV-1 (0.0-0.5in)

Client Sample ID: 9-SV-1 (0.0-0.5in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133001-A

Lab Project ID: 31201133

Collection Date: 04/17/2012 11:30 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

### Results by SW-846 8082A

| <u>Parameter</u>     | Result  | Qual | DL    | LOQ/CL   | Units | DF    | Date Analyzed    |
|----------------------|---------|------|-------|----------|-------|-------|------------------|
| Aroclor-1016         | ND      | U    | 13300 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1221         | ND      | U    | 71100 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1232         | ND      | U    | 34200 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1242         | ND      | U    | 18200 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1248         | ND      | U    | 13800 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1254         | ND      | U    | 16600 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| Aroclor-1260         | 3350000 |      | 15800 | 493000   | ug/Kg | 10000 | 04/19/2012 16:53 |
| urrogates            |         |      |       |          |       |       |                  |
| Tetrachloro-m-xylene | NA .    | D    |       | 40.0-120 | %     | 10000 | 04/19/2012 16:53 |
| Decachlorobiphenyl   | NA      | D    |       | 40.0-120 | %     | 10000 | 04/19/2012 16:53 |

### **Batch Information**

Analytical Batch: XGC2109

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/19/2012 16:53

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.29 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-1 (0.5-3.0in)

Client Sample ID: 9-SV-1 (0.5-3.0in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133004-A Lab Project ID: 31201133 Collection Date: 04/17/2012 12:00 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

### Results by SW-846 8082A

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|---|---|-------------------------------|------|----------|-------|------|------------------|
| Parameter   | Result  | Qual                          | DL   | LOQ/CL   | Units | DF   | Date Analyzed    |
| Aroclor-1016  | ND  | U                             | 1330 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1221  | ND  | U                             | 7120 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1232  | ND  | U                             | 3430 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1242  | ND  | U                             | 1830 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1248  | ND  | U                             | 1380 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1254  | ND  | U                             | 1660 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Aroclor-1260  | 58700   |                               | 1580 | 49400    | ug/Kg | 1000 | 04/25/2012 19:46 |
| Surrogates  |   |                               |      |          |       |      |                  |
| Tetrachloro-m-xylene  | NA  | D                             |      | 40.0-120 | %     | 1000 | 04/25/2012 19:46 |
| Decachlorobiphenyl  | NA  | D                             |      | 40.0-120 | %     | 1000 | 04/25/2012 19:46 |
|   |   |                               |      |          |       |      |                  |

### **Batch Information**

Analytical Batch: XGC2135

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/25/2012 19:46

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.24 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-2 (0.0-0.5in)

Client Sample ID: 9-SV-2 (0.0-0.5in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133005-A Lab Project ID: 31201133 Collection Date: 04/17/2012 12:30 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

### Results by SW-846 8082A

| Parameter  | Result | Qual | DL   | LOQ/CL   | Units | DF   | Date Analyzed    |
|--|--------|------|------|----------|-------|------|------------------|
| Aroclor-1016   | ND     | U    | 1320 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1221   | ND     | U    | 7020 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1232   | ND     | U    | 3380 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1242   | ND     | U    | 1800 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1248   | ND     | U    | 1360 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1254   | ND     | U    | 1640 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Aroclor-1260   | 489000 |      | 1560 | 48700    | ug/Kg | 1000 | 04/19/2012 16:02 |
| Surrogates   |        |      |      |          |       |      |                  |
| Tetrachloro-m-xylene   | NA     | D    |      | 40.0-120 | %     | 1000 | 04/19/2012 16:02 |
| Decachlorobiphenyl   | NA     | D    |      | 40.0-120 | %     | 1000 | 04/19/2012 16:02 |
| WAS CONTROL OF THE PROPERTY OF |        |      |      |          |       |      | 10.02            |

### **Batch Information**

Analytical Batch: XGC2109

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/19/2012 16:02

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.53 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-2 (0.5-3.0in)

Client Sample ID: 9-SV-2 (0.5-3.0in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133006-A Lab Project ID: 31201133 Collection Date: 04/17/2012 13:00 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received Solids (%):

### Results by SW-846 8082A

| Parameter            | Result | Qual | DL   | LOQ/CL   | Units | DF   | Date Analyzed    |
|----------------------|--------|------|------|----------|-------|------|------------------|
| Aroclor-1016         | ND     | U    | 1310 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1221         | ND     | U    | 7020 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1232         | ND     | U    | 3380 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1242         | ND     | U    | 1800 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1248         | ND     | U    | 1360 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1254         | ND     | U    | 1640 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Aroclor-1260         | 238000 |      | 1560 | 48700    | ug/Kg | 1000 | 04/25/2012 19:59 |
| Surrogates           |        |      |      |          |       |      |                  |
| Tetrachloro-m-xylene | NA     | D    |      | 40.0-120 | %     | 1000 | 04/25/2012 19:59 |
| Decachlorobiphenyl   | NA     | D    |      | 40.0-120 | %     | 1000 | 04/25/2012 19:59 |

### **Batch Information**

Analytical Batch: XGC2135

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/25/2012 19:59

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.55 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-3 (0.0-0.5in)

Client Sample ID: 9-SV-3 (0.0-0.5in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133007-A Lab Project ID: 31201133 Collection Date: 04/17/2012 13:15 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

### Results by SW-846 8082A

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|--|---------|------|-----------|----------|-------|-------|------------------|
| <u>Parameter</u>   | Result  | Qual | <u>DL</u> | LOQ/CL   | Units | DF    | Date Analyzed    |
| Aroclor-1016   | ND      | U    | 65000     | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1221   | ND      | U    | 347000    | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1232   | ND      | U    | 167000    | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1242   | ND      | U    | 89100     | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1248   | ND      | U    | 67400     | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1254   | ND      | U    | 80900     | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Aroclor-1260   | 8500000 |      | 77100     | 2410000  | ug/Kg | 50000 | 04/19/2012 16:15 |
| Surrogates   |         |      |           |          |       |       |                  |
| Tetrachloro-m-xylene   | NA      | D    |           | 40.0-120 | %     | 50000 | 04/19/2012 16:15 |
| Decachlorobiphenyl   | NA      | D    |           | 40.0-120 | %     | 50000 | 04/19/2012 16:15 |
|  |         |      |           |          |       |       |                  |

### Batch Information

Analytical Batch: XGC2109 Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/19/2012 16:15

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.76 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-3 (0.5-3.0in)

Client Sample ID: 9-SV-3 (0.5-3.0in)

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133008-A Lab Project ID: 31201133 Collection Date: 04/17/2012 13:30 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

### Results by SW-846 8082A

| Parameter            | Result | Qual | DL   | LOQ/CL   | Units | DF   | Date Analyzed                        |
|----------------------|--------|------|------|----------|-------|------|--------------------------------------|
| Aroclor-1016         | ND     | U    | 1260 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1221         | ND     | U    | 6710 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1232         | ND     | U    | 3230 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1242         | ND     | U    | 1720 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1248         | ND     | U    | 1300 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1254         | ND     | U    | 1560 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Aroclor-1260         | 64400  |      | 1490 | 46500    | ug/Kg | 1000 | 04/25/2012 20:12                     |
| Surrogates           |        |      |      |          | 73    |      |                                      |
| Tetrachloro-m-xylene | NA     | D    |      | 40.0-120 | %     | 1000 | 04/25/2042 20:40                     |
| Decachlorobiphenyl   | NA     | D    |      | 40.0-120 | %     | 1000 | 04/25/2012 20:12<br>04/25/2012 20:12 |
|                      |        |      |      |          |       |      |                                      |

### Batch Information

Analytical Batch: XGC2135 Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/25/2012 20:12

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 21.5 g Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of 9-SV-DUP-1

Client Sample ID: 9-SV-DUP-1

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133009-A Lab Project ID: 31201133 Collection Date: 04/17/2012 00:00 Received Date: 04/18/2012 10:15 Matrix: Soil-Solid as received

Solids (%):

Results by SW-846 8082A

| Result | Qual                                       | <u>DL</u>                            | LOQ/CL  | Units   | DF  | Date Analyzed   |
|--------|--|--------------------------------------|---|---|---|---|
| ND     | U  | 1310                                 | 48600   |   |   | 04/19/2012 16:27  |
| ND     | U  | 7010                                 | 48600   |   |   | 04/19/2012 16:27  |
| ND     | U  | 3370                                 | 48600   | •   |   | 04/19/2012 16:27  |
| ND     | U  | 1800                                 | 48600   |   |   | 04/19/2012 16:27  |
| ND     | U  | 1360                                 | 48600   |   |   | 04/19/2012 16:27  |
| ND     | U  | 1630                                 | 48600   |   |   | 04/19/2012 16:27  |
| 861000 |  | 1550                                 | 48600   | ug/Kg   | 1000  | 04/19/2012 16:27  |
|        |  |                                      |   |   |   |   |
| NA     | D  |                                      | 40.0-120  | %   | 1000  | 04/19/2012 16:27  |
| NA     | D  |                                      | 40.0-120  | %   | 1000  | 04/19/2012 16:27  |
|        | ND<br>ND<br>ND<br>ND<br>ND<br>ND<br>861000 | ND U ND U ND U ND U ND U ND U 861000 | ND U 1310 ND U 7010 ND U 3370 ND U 1800 ND U 1360 ND U 1630 861000 1550 | ND U 1310 48600 ND U 7010 48600 ND U 3370 48600 ND U 1800 48600 ND U 1360 48600 ND U 1630 48600 ND U 1630 48600 861000 1550 48600 | ND U 1310 48600 ug/Kg ND U 7010 48600 ug/Kg ND U 3370 48600 ug/Kg ND U 1800 48600 ug/Kg ND U 1800 48600 ug/Kg ND U 1360 48600 ug/Kg ND U 1630 48600 ug/Kg ND U 1630 48600 ug/Kg 861000 1550 48600 ug/Kg | ND U 1310 48600 ug/Kg 1000 ND U 7010 48600 ug/Kg 1000 ND U 3370 48600 ug/Kg 1000 ND U 1800 48600 ug/Kg 1000 ND U 1800 48600 ug/Kg 1000 ND U 1360 48600 ug/Kg 1000 ND U 1630 48600 ug/Kg 1000 ND ND U 1630 48600 ug/Kg 1000 |

### **Batch Information**

Analytical Batch: XGC2109

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/19/2012 16:27

Prep Batch: XXX2480

Prep Method: SW-846 3540/8082 Prep Date/Time: 04/19/2012 17:31 Prep Initial Wt./Vol.: 20.58 g

Prep Extract Vol: 10 mL

Print Date: 04/27/2012



### Results of Rinse Blank

Client Sample ID: Rinse Blank

Client Project ID: Bldg 9 Sub-Vault Concrete

Lab Sample ID: 31201133010-A Lab Project ID: 31201133 Collection Date: 04/17/2012 15:30 Received Date: 04/18/2012 10:15

Matrix: Water

### Results by SW-846 8082A

| Parameter            | Result | Qual | DL      | LOQ/CL   | Units | DF | Date Analyzed                        |
|----------------------|--------|------|---------|----------|-------|----|--------------------------------------|
| Aroclor-1016         | ND     | U    | 0.0151  | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1221         | ND     | U    | 0.00448 | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1232         | ND     | U    | 0.00834 | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1242         | ND     | U    | 0.00473 | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1248         | ND     | U    | 0.0104  | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1254         | ND     | U    | 0.0106  | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Aroclor-1260         | ND     | U    | 0.0124  | 0.0667   | ug/L  | 1  | 04/19/2012 16:40                     |
| Surrogates           |        |      |         |          | 153   |    |                                      |
| Tetrachloro-m-xylene | 68.0   |      |         | 40.0-120 | %     | 1  | 04/40/2042 42 42                     |
| Decachlorobiphenyl   | 77.0   |      |         | 40.0-120 | %     | 1  | 04/19/2012 16:40<br>04/19/2012 16:40 |
|                      |        |      |         |          |       |    |                                      |

### **Batch Information**

Analytical Batch: XGC2109

Analytical Method: SW-846 8082A

Instrument: ECD2 Analyst: DES

Analytical Date/Time: 04/19/2012 16:40

Prep Batch: XXX2478

Prep Method: SW-846 3520C 1L/1mL Prep Date/Time: 04/18/2012 18:37 Prep Initial Wt./Vol.: 974 mL Prep Extract Vol: 1 mL

Print Date: 04/27/2012



### CHAIN OF CUSTODY RECORD SGS North America Inc.

Alaska
 New Jersey
 North Carolina

· Maryland New York

www.us.sgs.com

101030

SOXHIET METHOD EXTENSITION BY EXTERCT & HOLD - ALLOSM3 A" DATEDIAL SAUMES NEED TO BEJEXTENCED & HELD EXTRACT & HOLD EXTENCT & HOLD Special Instructions. - EXILERAL POS BY STX HLET MERIAD 3540 Samplos Received Cold? (Ciro(e) YES) NO REMARKS 9 Chain of Custody Scal: (Circle) BROKEN PAGE OSTD Temporaturo C: INTACT Special Deliverable Requirements: RRUSH) . HSJINE: Preservatives The The The ₹ BUTA934M€T SGS Reference: (20 1133 WZIWZD Shipping Ticket No: Shipping Carrier: CBOS CONTENT XRUSH) SAMPLE GRAB GRAB 0 (1) (1) 9 9 U D V N 1 (00-0.5")4-17-12 1130 DUNGER ONCOUR 4-17-12 1530 WARE 4477-12 1600 NAMES MATRIX E-HAIL! MATT. CALA COME @CE. COM SITE/PWSIO#: GE PITTSFIELD PHONE NO: 413 ) 448-5914 P.O. NUMBER: 111100242 FAX NO.: 413 1448-5935 Received By: Received By: Received By: Received By **8**2 200 (380 1315 COR. 4-17-12 DATE 8 Time Time ime ELECTRIC 4/17/12 QUOTE #: 26.0-0.5" 26,5-30" (6.5-3.0" 360-05 SV-3(65-36") 4/18/12 9-SV-DUP-4 SAMPLE IDENTIFICATION Date TEMP BLADK RINSE BLACK PITERIED, MADIZOI PROJECT BIDG 9 SUB-UAULT PITSEIFI D.MA.01201 CONTACT: MATT CALACOLDE INVOICE TO: MATECALACOUE REPORTS TO MANT CALACOUSE Collected/Keilinguished-5x(1) SV-9-SV--1s-6 GEWERA -NS-6 -NS-6 5 Relinquished By: (2) T Relinquished By: (3) Relinquished By: (4) CLIENT LAB NO.

□ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301 □ 5500 Businçss Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab Pink - Retained by Client

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### Sample Receipt Checklist (SRC)

| Client:    | GE-MA   | Work Order No.:                      | 31201133         |
|------------|---|--------------------------------------|------------------|
| 1.         | X Shipped Hand Delivered  | Notes:                               |                  |
| 2.         | X COC Present on Receipt No COC Additional Transmittal Forms  |                                      |                  |
| 3.         | X Custody Tape on Container No Custody Tape   |                                      |                  |
| 4.         | X Samples Intact Samples Broken / Leaking   |                                      |                  |
| 5.         | X Chilled on Receipt Actual Temp.(s) in °C: Ambient on Receipt Walk-in on Ice; Coming down to temp. Received Outside of Temperature Specification |                                      |                  |
| 6.         | X Sufficient Sample Submitted Insufficient Sample Submitted   |                                      |                  |
| 7.         | Chlorine absent HNO3 < 2 HCL < 2 Additional Preservatives verified (see notes)  |                                      |                  |
| 8.         | X Received Within Holding Time Not Received Within Holding Time   |                                      |                  |
| 9.         | X No Discrepancies Noted Discrepancies Noted NCDENR notified of Descrepancies*  |                                      |                  |
| 10.        | No Headspace present in VOC vialsHeadspace present in VOC vials >6mm  |                                      |                  |
| omments: _ |   |                                      |                  |
|            |   |                                      |                  |
|            |   |                                      |                  |
|            | Inspec  | cted and Logged in by: JJ<br>Date: W | ed-4/18/12 00:00 |